



[Docket No. OP-1613]

New Message Format for the Fedwire® Funds Service

AGENCY: Board of Governors of the Federal Reserve System.

ACTION: Notice.

SUMMARY: The Board of Governors of the Federal Reserve System (Board) is announcing that the Federal Reserve Banks (Reserve Banks) will adopt the ISO® 20022 message format for the Fedwire® Funds Service on a single day, March 10, 2025. The Board is also announcing a revised testing strategy, backout strategy, and other details concerning the implementation of the ISO 20022 message format for the Fedwire Funds Service.

DATES: Implementation date: March 10, 2025.

FOR FURTHER INFORMATION CONTACT: Cody Gaffney, Attorney (202-452-2674), Legal Division; Amber Latner, Lead Financial Institution Policy Analyst (202-973-6965), Division of Reserve Bank Operations and Payment Systems.

SUPPLEMENTARY INFORMATION:

I. Background

The Fedwire Funds Service is a real-time gross settlement system owned and operated by the Reserve Banks that enables participants to make immediately final payments using either their balances held at the Reserve Banks or intraday credit provided by the Reserve Banks. The Fedwire Funds Service and the CHIPS® funds-transfer system, which is owned and operated by

The Clearing House Payments Company L.L.C. (TCH), are the main large-value payment systems in the United States.¹

At present, the Fedwire Funds Service uses a proprietary message format that supports multiple types of communications, including (i) “value” messages that order the movement of funds, (ii) “nonvalue” messages that do not result in the movement of funds but rather communicate information or requests to other Fedwire Funds Service users, and (iii) other messages that enable Fedwire Funds Service users to request account balance information and the processing status of payment orders.² The present Fedwire Funds Service message format can be mapped to – and is interoperable with – the CHIPS message format and the message type format of the SWIFT messaging network.

In 2004, the International Organization for Standardization (ISO) – an independent, non-governmental organization currently comprising 167 national standards bodies – published the ISO 20022 standard, which includes a suite of message format standards for the financial industry, including messages for payments, securities, trade services, debit and credit cards, and foreign exchange. ISO 20022 messages use extensible markup language (XML) syntax, have a common data dictionary that can support end-to-end payment message flow, and include structured data elements that provide for potentially richer payment message data than the current Fedwire Funds Service message format.

On July 5, 2018, the Board published a notice and request for comment (2018 Notice) on a proposal to adopt the ISO 20022 message format for the Fedwire Funds Service.³ The 2018 Notice more fully described the current Fedwire Funds Service message format and the ISO

¹ In 2021, the Fedwire Funds Service processed approximately 204 million payments with a total value of approximately \$992 trillion. See FRBServices.org, *Fedwire® Funds Service – Annual Statistics*, <https://www.frbsservices.org/resources/financial-services/wires/volume-value-stats/annual-stats.html>. CHIPS processed approximately 128 million payments with a total value of approximately \$449 trillion. See TCH, *CHIPS Annual Statistics from 1970 to 2022*, https://www.theclearinghouse.org/-/media/new/tch/documents/payment-systems/chips_volume_value_ytd_march_2022.pdf.

² In this notice, the term “users” refers to (i) Fedwire Funds Service participants and (ii) software vendors and third-party service providers that facilitate transactions for Fedwire Funds Service participants.

³ 83 FR 31391 (July 5, 2018).

20022 message format, including tables that compared the two formats with respect to various message elements. In addition, the 2018 Notice described payments industry efforts related to ISO 20022, including outreach by the Reserve Banks and coordination efforts between the Reserve Banks, TCH, and other stakeholders. The 2018 Notice further described the potential benefits of adopting the ISO 20022 message format for the Fedwire Funds Service, including increased efficiency due to greater interoperability among global payment systems and types of payments, richer data that could improve anti-money laundering and sanctions screening, and broader adoption of extended remittance information.⁴ The 2018 Notice included a request for comment on the potential benefits and drawbacks of adopting the ISO 20022 standard.

II. Summary of 2021 Notice

After considering public comments received in connection with the 2018 Notice, on October 6, 2021, the Board published a notice and request for comment (2021 Notice) that announced that the Reserve Banks will adopt the ISO 20022 standard for the Fedwire Funds Service.⁵ The Board noted that migrating the Fedwire Funds Service to the ISO 20022 message format will provide a variety of policy and operational benefits and was supported by commenters.

At the same time, the Board in the 2021 Notice proposed that the Reserve Banks adopt the ISO 20022 message format on a single day, rather than in three separate phases, as previously proposed.⁶ The 2021 Notice stated that as of the implementation date (*i.e.*, the date on which the

⁴ Extended remittance information generally refers to details in the payment message regarding the purpose of a business-to-business payment. For example, a business that sends a payment to a vendor could include details regarding the invoices against which the vendor should apply the payment.

⁵ 86 FR 55600 (Oct. 6, 2021).

⁶ In the 2018 Notice, the Board had proposed to transition from the current Fedwire Funds Service message format to ISO 20022 in three phases from November 2020 to November 2023. However, as described in the 2021 Notice, various developments caused the Board to reconsider its proposed three-phased migration to ISO 20022. For example, in September 2019, the Payments Market Practice Group – an independent advisory group of payments experts that reports to the Banking and Payments Committee of SWIFT’s Board of Directors, and whose members represent global financial institutions from Asia Pacific, Europe, and North Africa – formally requested that the Board consider a single-day implementation of the ISO 20022 message standard for the Fedwire Funds Service. In addition, the Board engaged with the industry through the Format Advisory Group – which is jointly chaired by the Federal Reserve Bank of New York and TCH, and includes 18 global and regional banks, 17 of which are Fedwire Funds Service users and 10 of which are also CHIPS users – on a potential single-day implementation strategy.

Fedwire Funds Service is scheduled to migrate to ISO 20022), all Fedwire Funds Service users would be required to be able to send and receive fully enhanced ISO 20022 messages and the current proprietary message format for the Fedwire Funds Service would no longer be supported. The implementation date would be targeted for, and would be no earlier than, November 2023. The Board noted that the Federal Reserve intends to align the timing of ISO 20022 implementation for the Fedwire Funds Service with that of CHIPS to the extent possible to maximize benefits for Fedwire Funds Service users that also use CHIPS.⁷

The Board in the 2021 Notice also explained that the Reserve Banks are using SWIFT's MyStandards application to store and share documentation related to the ISO 20022 implementation with authorized Fedwire Funds Service users.⁸ The Board stated that the Reserve Banks will publish the final message format documents for ISO 20022 messages after the Board announces a final implementation strategy.

The 2021 Notice also outlined the Board's proposed strategy for the testing of ISO 20022 messages prior to the targeted implementation date. Specifically, the Board proposed that the Reserve Banks require rigorous testing in three different environments. First, the Reserve Banks would enable authorized Fedwire Funds Service users to use the Readiness Portal feature within MyStandards to ensure that their ISO 20022 messages conform to Fedwire Funds Service requirements. Second, the Reserve Banks would introduce a new depository institution testing (DIT) environment 9 to 12 months ahead of the targeted implementation date to provide users a dedicated environment for testing ISO 20022 messages, including the opportunity to conduct coordinated testing to confirm their ability to send and receive ISO 20022 messages among each other. The Reserve Banks would also provide opportunities for users to test ISO 20022

⁷ In addition, the 2021 Notice addressed commenters' concerns that the Fedwire Funds Service should remain interoperable with other payment and messaging systems. For example, the 2021 Notice described steps that the Reserve Banks will take to reduce the risk of cross-border interoperability issues during the interim period between SWIFT's implementation of ISO 20022 (in November 2022) and the Fedwire Funds Service's implementation of ISO 20022.

⁸ For more information on MyStandards, see <https://www.swift.com/our-solutions/compliance-and-shared-services/mystandards>.

messages in the production environment on select Saturdays two to three months prior to the targeted implementation date. Third, the Reserve Banks would require certain users to complete a separate test script in each testing environment (*i.e.*, the MyStandards Readiness Portal, the DIT environment, and the production environment). The Board stated in the 2021 Notice that the Reserve Banks would publish a final testing plan, including the testing requirements for each testing environment, after the Board announces a final implementation strategy.

Finally, the 2021 Notice described the Board’s proposed backout strategy if the Reserve Banks encounter significant problems deploying ISO 20022-related changes on the Saturday before the targeted implementation date, and the Board’s proposed strategy for addressing significant problems that arise on or after the implementation date. With respect to issues that arise on the Saturday before the implementation date, the Reserve Banks would have the ability to “back out” the ISO 20022 changes and return to the legacy format on a temporary basis. For this reason, Fedwire Funds Service users would need to attest to their ability to back out their ISO 20022 changes when they conduct their production testing. With respect to issues that arise on or after the implementation date, the Reserve Banks would not be able to return to the legacy format but would instead follow a “fix-in-place” strategy to address the issue.

The Board requested comment on all aspects of its proposal to migrate the Fedwire Funds service to the ISO 20022 message format on a single day. In addition, the 2021 Notice sought comment on eight specific questions.

III. Summary of Public Comments

The Board received 60 comment letters in response to the 2021 Notice. Of those, 35 were from banks, 14 were from individuals, 5 were from industry organizations, 4 were from third-party software vendors, and 2 were from financial market utilities.⁹

⁹ Duplicate submissions or similar comments from the same commenter were treated as a single submission.

The remainder of section III summarizes commenters' responses to the eight specific questions that the Board posed in the 2021 notice, as well as other issues raised by commenters.¹⁰

A. Support for Single-Day Implementation Strategy

Of commenters expressing a preference regarding the ISO 20022 implementation strategy, the vast majority of commenters preferred the single-day implementation strategy to a phased implementation approach. However, three commenters, including a major trade association representing community banks, opposed the single-day implementation strategy, arguing that the single-day implementation approach would be unacceptably costly, would strain testing capacity, and would increase implementation risk. One commenter that opposed the single-day implementation strategy suggested that the Reserve Banks should instead implement ISO 20022 for a small group of Fedwire Funds Service users, and if that goes smoothly, migrate the remaining users to ISO 20022 at a later time. In subsequent discussions between Reserve Bank staff and the community bank trade association that expressed opposition to a single-day implementation approach, the commenter expressed support for a single-day implementation approach provided that the implementation date is significantly delayed past November 2023 and there is a full year of testing in the DIT environment.

In light of the broad support for the single-day implementation approach, and as discussed further in section IV, *infra*, the Board is announcing that the Reserve Banks will adopt the ISO 20022 standard for the Fedwire Funds Service on a single day.

B. Proposed Implementation Date

While several commenters supported the proposed targeted November 2023 implementation date, the vast majority of commenters that addressed the implementation date requested a 6- to 12-month extension beyond the implementation date proposed in the 2021

¹⁰ For simplicity, two of these questions related to testing are discussed together in section III.E, *infra*.

Notice. In addition, several commenters suggested that the implementation date should not fall close to a U.S. banking holiday or the winter holiday season to avoid implementing ISO 20022 during a period of increased Fedwire Funds Service transaction volume; in subsequent discussions with Reserve Bank staff, some of these commenters similarly expressed a preference that the implementation date should not fall at the end of a month or a calendar quarter. One commenter urged the Board and the Reserve Banks to work with the other global payment systems operators and SWIFT to ensure that the international ISO 20022 implementation schedule includes adequate buffer time between the implementation dates for various payment systems. One commenter suggested that the Board consider an implementation date that provides a gap – preferably up to one year – between the launch of the FedNowSM Service and the ISO 20022 implementation for the Fedwire Funds Service. Another commenter asked the Board to consider the impact that the proposed implementation timeline would have on third-party vendors performing fraud detection and compliance services for Fedwire Funds Service users.

The Board has reconsidered the proposed targeted November 2023 implementation date in light of the comments received. As discussed further in section IV.A., *infra*, the Board is announcing that the Reserve Banks will implement the ISO 20022 message format for the Fedwire Funds on March 10, 2025.

C. Synchronization with CHIPS

Many commenters expressed a preference for synchronizing the ISO 20022 implementation timing of the Fedwire Funds Service and CHIPS. Of these commenters, one commenter suggested that if the implementation dates for the Fedwire Funds Service and CHIPS do not align, then the Board should ensure that the implementation timeline for the Fedwire Funds Service builds in an adequate gap between the two migrations. By contrast, two commenters noted that implementing the ISO 20022 message format for the Fedwire Funds

Service and CHIPS at the same time would increase the risk that an implementation-related issue could result in the simultaneous disruption of both services, leaving users without an alternative operator to process wire transactions.

While the Reserve Banks and TCH decided independently to pursue implementation of ISO 20022, the Reserve Banks have worked with TCH on plans to adopt the ISO 20022 message format for the Fedwire Funds Service and CHIPS since 2015. The Reserve Banks intend to continue working with TCH to coordinate the implementation of ISO 20022 for the Fedwire Funds Service with that of CHIPS to the extent possible to reduce both interoperability issues and the risk of simultaneous disruptions to users of both services.

D. Resource Constraints

Multiple commenters expressed concerns about resource constraints resulting from the need to prepare simultaneously for the launch of the FedNow Service and the implementation of the ISO 20022 message format for the Fedwire Funds Service. Specifically, several commenters suggested the Board consider the effects of any new payment systems technology initiatives on financial institutions' already strained technology resources. One of these commenters specifically noted that the potential concurrent implementation of the FedNow Service and the ISO 20022 message format for the Fedwire Funds Service would strain the resources of community banks, particularly their information technology departments and vendors. Another commenter noted that in addition to the Federal Reserve's payment system modernization efforts, some banks must also allocate resources in preparation for SWIFT's transition to the ISO 20022 format in November 2022.

Commenters also suggested that the Board communicate to the industry its prioritization of the Federal Reserve's ongoing and potential payment systems technology initiatives. For example, commenters suggested the Board communicate whether it is prioritizing the implementation of the ISO 20022 message format for the Fedwire Funds Service relative to the

deployment of the FedNow Service and the potential expansion of the operating hours of the Fedwire Funds Service and National Settlement Service (NSS).

The Board is cognizant of the fact that institutions may have limited financial and human capital resources available for competing payments-related priorities. The FedNow Service is expected to go online in 2023.¹¹ The Board believes that shifting the implementation date for the migration of the Fedwire Funds Service to the ISO 20022 format to March 10, 2025, rather than targeting November 2023 as proposed, should mitigate commenters' concerns regarding resource constraints in light of the launch of the FedNow Service.

In the 2021 Notice, the Board indicated that it planned to issue a *Federal Register* notice in 2022 to seek input on a proposal to expand Fedwire Funds Service and NSS operating hours up to 24x7x365. The Board believes that the goal of providing large-value payments 24x7x365 aligns with the Federal Reserve's commitment to position the nation's payment and settlement infrastructure for the future.¹² While the Federal Reserve intends to continue exploring the potential expansion of the Fedwire Funds Service and NSS operating hours, the Reserve Banks plan to dedicate more resources in the near term to ensuring the successful implementation of ISO 20022. The Reserve Banks plan to engage further with Fedwire Funds Service and NSS users throughout 2022 to inform considerations related to the Reserve Banks' longer-run provision of large-value payments, including the potential expansion of Fedwire Funds Service and NSS operating hours. The Board believes that a *Federal Register* notice regarding the potential expansion of operating hours should be informed by insights that will be gained through the Reserve Banks' discussions with users. Therefore, the Board plans to issue a *Federal Register* notice regarding the potential expansion of Fedwire Funds Service and NSS operating hours after the Reserve Banks complete their outreach sessions.

¹¹ See FRBServices.org, *Federal Reserve Updates FedNowSM Service Launch to 2023* (Feb. 2, 2021), <https://www.frbsservices.org/financial-services/fednow/blog/updated-fednow-service-launch-to-2023.html>.

¹² 86 FR 55600, 55606 (Oct. 6, 2021).

E. Proposed Testing Strategy, Requirements, and Timeline

The majority of commenters that took a position on testing were supportive of, or neutral about, the proposed testing strategy and requirements. Several commenters encouraged the Board to share, as early as possible, testing plans and test scripts for the three proposed testing environments. One commenter noted that the proposed Saturday production testing plan did not offer enough Saturdays for users to conduct production testing. Another commenter suggested that the Reserve Banks provide test accounts for users during testing. This commenter also suggested the Board establish a technology roadmap that would lay out a series of key dates and milestones for the system requirements and testing procedures. In addition, two commenters stated that the Board and TCH should coordinate on industry testing for the Fedwire Funds Service and CHIPS. One commenter requested the Board provide additional details regarding (i) validation capabilities of the MyStandards Readiness Portal; (ii) whether the new DIT environment requires Fedwire Funds Service users to internally operate two parallel test environments; (iii) who will coordinate testing between users; (iv) whether there will be specific periods to test functionality between users; and (v) what the specific test scripts will entail.

Commenters expressed a variety of opinions about the amount of time needed for testing in the MyStandards Readiness Portal and the DIT environment. For testing in the MyStandards Readiness Portal, preferred timeframes ranged from one week to nine months. For testing in the DIT environment, many commenters expressed comfort with the 9- to 12-month timeframe proposed in the 2021 Notice, while others felt that the proposed range was too short. Of those, several requested no less than 12 months of DIT environment testing time, while others requested an additional 12 months of testing time on top of the 9- to 12-month range proposed in the 2021 Notice.

One commenter requested that the Board ensure all Fedwire Funds Service users be granted adequate access to all of the testing environments. The commenter also suggested that

certain third parties should be subject to the certification process at all stages, and information about their progress should be made publicly available.

The Board has considered all comments related to the proposed testing strategy, requirements, and timeline. As discussed further in section IV.B, *infra*, the Board is announcing a revised testing strategy in response to commenter feedback. In particular, the revised testing strategy includes 12 months of DIT testing time for users to prepare for the migration of the Fedwire Funds Service to the ISO 20022 message format.

F. Proposed Backout Strategy and Fix-in-Place Strategy

Most commenters that addressed the proposed backout and fix-in-place strategies described in the 2021 Notice were neutral about, or supportive of, the proposed strategies. Two commenters expressed concern that the backout timeframe was too short, providing only two days of notice for users to revert back to the legacy format. One commenter noted that some users typically require one week or more to complete change control processes. Another commenter recommended the Board commence the backout period one week earlier than was proposed in the 2021 Notice, thereby providing users with up to nine days to revert back to the legacy format prior to the implementation date. This would provide users that have prepared large numbers of ISO 20022-formatted payments in advance with adequate time to convert those payments back to the legacy format. A different commenter suggested the Board consider a continuity strategy that includes criteria for users to request an extension in the event that they are not prepared to implement ISO 20022 on a designated date. Finally, one commenter suggested the Board consider conducting a mock activation test before the implementation date to perform a final assessment of industry readiness and simulate the steps needed to perform a backout.

The Board has considered all comments related to the proposed backout strategy and fix-in-place strategy. As discussed further in section IV.D, *infra*, the Board is announcing a revised

backout strategy that will provide Fedwire Funds Service users with at least two weeks' advance notice if the implementation of ISO 20022 must be delayed.

G. Other Issues Raised by Commenters

The Board received many comments that, while relevant to the ISO 20022 implementation strategy for the Fedwire Funds Service, did not directly respond to one of the questions in the 2021 Notice.¹³ For example, two commenters addressed the possibility that some financial institutions would not be prepared to meet a November 2023 implementation timeframe and suggested the Board and the Reserve Banks develop a service to translate legacy Fedwire Funds Service messages to the ISO 20022 format while supporting normal transaction volumes for all users. However, one of the two commenters noted that the benefits of such a service should be weighed against any potential implementation delay caused by its development. The Reserve Banks considered developing such a translation service but concluded that doing so would further delay the ISO 20022 implementation process.

Another commenter suggested the Board develop policies and procedures regarding the storage and retrieval of data under the old and new formats. The Reserve Banks have already announced policies regarding retrievals, which differ depending on how users access the Fedwire Funds Service.¹⁴

Many commenters supported future educational efforts and industry outreach related to ISO 20022 by the Board and the Reserve Banks, including a comprehensive education and training campaign through webinars, online training, and in-person workshops. In addition, many commenters expressed support for transparent and continuous communication to, and

¹³ In addition, the Board received a number of comments that were not relevant to the proposed ISO 20022 implementation strategy for the Fedwire Funds Service. The Board is not responding to these comments in this notice.

¹⁴ See FRBServices.org, *Fedwire Funds Service ISO 20022 Implementation Frequently Asked Questions* (rev. as of October 2021), <https://www.frbservices.org/resources/financial-services/wires/faq/iso-20022-implementation.html> (“How will retrievals be supported when the new format is implemented?”).

coordination with, the industry by the Board and the Reserve Banks at various stages of the ISO 20022 implementation process. One commenter suggested the Reserve Banks provide real-time updates to the industry during the go-live weekend so the industry could prepare to activate the back-out strategy if needed. Another commenter suggested the Reserve Banks provide Fedwire Funds Service users with status updates on the progress their peers are making toward implementing the ISO 20022 message format so that all users can gauge whether the Reserve Banks are on track to meet the implementation date. One commenter suggested the Reserve Banks establish and publicly disseminate a certification process for each essential stage of the ISO 20022 implementation. The commenter asserted that this certification process would allow users to benchmark their progress against that of their peers, while providing the Board and the Reserve Banks with an early warning system in the event that users fall behind the certification schedule. Finally, to fully evaluate the best approach for the industry, a commenter recommended the Reserve Banks engage in continuous dialogue and coordination throughout the ISO 20022 implementation process with TCH, as well as common users of both the Fedwire Funds Service and CHIPS, and key third-party service providers (*e.g.*, cloud computing companies and platform software vendors).

The Board agrees with commenters that effective communication and industry outreach are essential to ensuring a smooth transition to the ISO 20022 message format for the Fedwire Funds Service. As discussed further in section IV.E, *infra*, the Reserve Banks are developing a communication and education strategy that is intended to promote industry readiness. In addition, as discussed further in section IV.C, *infra*, the Reserve Banks will develop an Industry Readiness Dashboard to provide transparency regarding industry readiness for the ISO 20022 migration.

Although the Board did not request feedback on this topic, several commenters provided feedback regarding the format and content of specific message data elements, character sets, and other ISO 20022 format specifications discussed in the 2018 Notice and the 2021 Notice. The

Board notes that the Reserve Banks will soon publish the ISO 20022 message format specifications for the Fedwire Funds Service on the MyStandards application; the specifications will be made publicly available and they will align with industry guidelines for high-value payment systems.

IV. Implementation of the ISO 20022 Standard for the Fedwire Funds Service

The Board has considered all feedback received in connection with the 2021 Notice and is announcing that the Reserve Banks will implement the ISO 20022 message format for the Fedwire Funds Service on a single day, as proposed. The Board notes that the proposed single-day implementation strategy was supported by the vast majority of public commenters. The Board continues to believe that a single-day implementation strategy is preferable to a three-phased implementation approach because it is both simpler and more efficient for Fedwire Funds Service users and the Reserve Banks to meet a single implementation deadline rather than three unique deadlines. Specifically, by removing the first two phases of the three-phased implementation approach proposed in the 2018 Notice, the single-day implementation approach enables users to focus their attention and resources on a single development and testing target. Eliminating the first two phases of the implementation strategy is also likely to reduce Fedwire Funds Service users' overall costs related to software development, testing, and training.

Further, the Board believes the single-day implementation strategy will be more expedient than the proposed three-phased implementation strategy. Many domestic and international large-value payment and messaging systems have announced plans to migrate to the ISO 20022 format in 2022 and 2023, and the Board believes that a single-day implementation strategy will more closely align the implementation of the ISO 20022 format for the Fedwire Funds Service with that of other payment and messaging systems.¹⁵

¹⁵ As noted previously, SWIFT will transition to the ISO 20022 message format in November 2022. TCH has announced that CHIPS will transition to the ISO 20022 message format in November 2023.

The remainder of this section provides additional information regarding the Reserve Banks' strategy for implementing ISO 20022 for the Fedwire Funds Service.

A. Implementation Date

The Board is announcing that the Fedwire Funds Service will migrate to the ISO 20022 message format on March 10, 2025. The Board determined that it is appropriate to shift the implementation of ISO 20022 for the Fedwire Funds Service beyond the proposed targeted November 2023 implementation date based on commenters' requests for additional time for testing ISO 20022 messages, as well as their concerns that competing payment systems-related technology initiatives would constrain resources needed for ISO 20022 implementation. In addition, the Board selected the date to avoid implementing the ISO 20022 message format close to a U.S. banking holiday, during the winter holiday season (which also generally coincides with many firms' annual freeze periods for significant technology changes), or at the end of a month or quarter. The date also provides a gap between the launch of the FedNow Service and the ISO 20022 implementation for the Fedwire Funds Service.

B. Revised Testing Strategy

The Board is announcing that the Reserve Banks will adopt the proposed testing strategy in the 2021 Notice, with several modifications in response to commenter feedback. Given the magnitude of the changes required to support the ISO 20022 messaging standard, the Reserve Banks will require certain users to complete robust testing.¹⁶ By the end of 2022, the Reserve Banks will notify all users that will be required to complete testing. The required testing will take places across multiple testing environments, described in more detail below. The Reserve

¹⁶ The Reserve Banks will require the following types of users to complete a test script in each of the three test environments: (i) all users that have their own FedLine Direct® connection to the Fedwire Funds Service, which includes service providers that host the connection for other users, bankers' banks, and corporate credit unions; and (ii) users that import 100 or more transactions per day using the FedPayments Manager-Funds application via the FedLine Advantage® solution. Based on additional analysis by the Reserve Banks, this list of users who will be required to test has been modified slightly from the proposed testing strategy described in the 2021 Notice.

Banks will provide detailed test scripts and attestation forms for each test environment in advance of making each environment available for testing.

i. Advance Testing Through the MyStandards Readiness Portal

The MyStandards Readiness Portal will be a dedicated testing environment that will allow users to validate their ISO 20022 messages against the Fedwire Funds Service ISO 20022 specifications before beginning testing in the new DIT environment described below.

Specifically, users will be able to submit their ISO 20022 messages to the MyStandards Readiness Portal to ensure that their messages are structured properly and pass various format requirements for each message (*e.g.*, mandatory versus optional data elements, minimum or maximum field lengths, allowable characters or codes). This advance testing will greatly reduce the risk of Fedwire Funds Service users encountering message format errors during the next phases of testing. Certain users will be required to attest to successful completion of a test script in the MyStandards Readiness Portal before conducting testing in the new DIT environment.

Users will need a valid swift.com login ID and password to access the MyStandards Readiness Portal. The Reserve Banks will make the MyStandards Readiness Portal available to users by the end of 2022; the MyStandards Readiness Portal will remain available throughout the ISO 20022 implementation process.

ii. New Depository Institution Testing Environment (DIT2)

The Reserve Banks will introduce a new testing environment that will allow users to perform dedicated testing with the new ISO 20022 version of the Fedwire Funds Service application software.¹⁷ In early 2023, the Reserve Banks will notify users about the process for

¹⁷ The existing user testing environment (DIT1) will remain available and include the version of the Fedwire Funds Service application software that will become effective November 21, 2022. DIT1 will be available for users to perform application functionality testing with the current format to support internal changes necessary before ISO 20022 implementation. It will also enable service providers to onboard new users prior to ISO 20022 implementation.

establishing access to DIT2. The Reserve Banks will make the DIT2 environment available to users at least 12 months prior to the implementation date, rather than 9 months as proposed. The Reserve Banks will also provide opportunities for users to test with each other in DIT2. Certain users will be required to attest to successful completion of a test script in DIT2 before conducting testing in the production environment.

iii. Production Environment

The Reserve Banks will deploy the ISO 20022 version of the Fedwire Funds Service software to the production environment on select Saturdays prior to the implementation date to allow users to test their ISO 20022 changes with the Fedwire Funds Service production software. Certain users will be required to attest to successful completion of a test script in the production environment prior to the implementation. The Reserve Banks will announce the dates for the Saturday production testing at least one year prior to the implementation date.

C. Industry Readiness Dashboard

Once testing begins, the Reserve Banks will publish a dashboard on the ISO 20022 webpage on the FRBservices.org website to provide transparency into industry readiness throughout the project lifecycle. The dashboard will also provide early insights into issues that could potentially impact the implementation timeline. While the Reserve Banks will monitor individual user readiness, the dashboard will highlight industry readiness by user categories (*e.g.*, national accounts, service providers, bankers' banks/corporate credit unions) across key testing milestones.

D. Revised Backout Strategy and Fix-in-Place Strategy

i. Revised Backout Strategy and "Go/No Go" Decision

The Board is announcing that the Reserve Banks will follow a modified version of the proposed backout strategy, which has been revised in response to commenter feedback. Under

the revised backout strategy, the Reserve Banks will complete all internal and user testing activities at least two weeks prior to the ISO 20022 implementation date and make a “go/no go” decision based on internal and industry readiness. The Reserve Banks will notify all users about the “go/no go” decision no later than two weeks prior to the implementation date. If a “go” decision is made, the Reserve Banks will be subject to a two-week freeze period during which no further changes would be made to the ISO 20022 software and production infrastructure. If the Reserve Banks decide to delay the implementation date for any reason, the notification would provide users two weeks’ advance notice to adjust their plans.

ii. Fix-in-Place Strategy

The Reserve Banks will follow the fix-in-place strategy described in the 2021 Notice substantially as proposed. On the Saturday before the implementation date (assuming that a “go” decision was made, and following the two-week freeze period), the Reserve Banks will deploy the ISO 20022 software to the production environment. The Reserve Banks will follow a fix-in-place strategy if any issues arise during or after the deployment. If issues do arise, the Reserve Banks will implement a software update to address the issue as soon as the fix has been identified and fully tested. This strategy is consistent with prior customer-facing initiatives and received broad support from commenters.

E. Communication and Education Strategy

The Reserve Banks are planning to share information pertaining to the implementation of the ISO 20022 message format for the Fedwire Funds Services through the following channels:

- The ISO 20022 webpage on the FRBservices.org website, which will provide up-to-date information on all aspects of the ISO 20022 migration, including frequently asked questions, a list of software vendors that the Reserve Banks are working with to ensure readiness

for the ISO 20022 implementation, and the industry readiness dashboard to track industry progress against key milestones;

- SWIFT's MyStandards application, which will include technical documentation related to the ISO 20022 messages that will be implemented for the Fedwire Funds Service;
- Fed360 articles and targeted user communications, which will announce the final ISO 20022 implementation timeline and testing requirements, highlight key milestones pre- and post-implementation, invite users to education events, and remind users about testing requirements and deadlines; and,
- Webinars, which will educate users on all aspects of the ISO 20022 migration. The first series of webinars will begin in the fourth quarter of 2022. The Reserve Banks will announce the dates for the webinars at least one month ahead of each webinar. The Reserve Banks will record the webinars and make them available to users.

By order of the Board of Governors of the Federal Reserve System.

Michele Taylor Fennell,

Deputy Associate Secretary of the Board.